

1. A printer system comprising:

a first communication interface configured to receive a humidity value from a toner cartridge; and

5 printer components configured to control printing operation based on the

humidity value.

2. The printer system of claim 1 further comprising a toner cartridge configured for coupling to the printer system and that comprises:

a humidity sensor configured to detect a humidity level and generate the 10 humidity value to correspond with the humidity level; and

15 a second communication interface configured to transfer the humidity value from the humidity sensor to the first communication interface.

3. The printer system of claim 1 wherein the printer components are configured to 20 configure a dither matrix based on the humidity value.

4. The printer system of claim 3 wherein the printer components are configured to 25 select the dither matrix from a plurality of dither matrices based on the humidity value.

5. The printer system of claim 3 wherein the printer components are configured to 30 scale the dither matrix by applying the humidity value to a response curve.

6. The printer system of claim 1 wherein the printer components are configured to 35 use a default value if the humidity value is not available.

7. The printer system of claim 1 wherein the printer components are configured to determine a humidity range corresponding to the humidity value.

5      8. The printer system of claim 1 wherein:

          the first communication interface is configured to receive the humidity value from the toner cartridge in real-time; and

          the printer components configured to control printing operation based on the humidity value in real-time.

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9. The printer system of claim 1 wherein the printer components are configured to produce monochrome copies.

10. A method of operating a printer system, the method comprising:

receiving a humidity value from a toner cartridge; and

controlling printing operation based on the humidity value.

5 11. The method of claim 10 further comprising, in the toner cartridge:

detecting a humidity level;

generating the humidity value to correspond with the humidity level; and

transferring the humidity value from the toner cartridge to the printer system.

10 12. The method of claim 10 wherein controlling the printing operation based on the humidity value comprises configuring a dither matrix based on the humidity value.

13. The method of claim 12 wherein configuring the dither matrix based on the humidity value comprises selecting the dither matrix from a plurality of dither matrices based on the humidity value.

14. The method of claim 12 wherein configuring the dither matrix based on the humidity value comprises applying the humidity value to a response curve to scale the dither matrix.

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15. The method of claim 10 wherein controlling the printing operation based on the humidity value comprises using a default value if the humidity value is not available.

16. The method of claim 10 wherein controlling the printing operation based on the humidity value comprises determining a humidity range corresponding to the humidity value.

5 17. The method of claim 10 wherein:

receiving the humidity value from the toner cartridge comprises receiving the humidity value from the toner cartridge in real-time; and  
controlling the printing operation based on the humidity value comprises controlling the printing operation based on the humidity value in real-time.

18. The method of claim 10 wherein controlling the printing operation based on the humidity value comprises producing monochrome copies.

19. A toner cartridge comprising:

toner for a printer system;

a humidity sensor configured to detect a humidity level and generate a humidity value that corresponds to the humidity level; and

5 a communication interface configured to transfer the humidity value from the humidity sensor to the printer system.

20. The toner cartridge of claim 19 wherein the humidity sensor is configured to generate the humidity value to correspond to a humidity range for the humidity level.